

## ABSTRACT

An integrated signal sensor with processing power to augment a challenge from server and compute the response is proposed to guarantee that the sensed signal is live and not stored. The sensor-processor computes the response to the augmented challenge based on the signal

- 5 charactersitics of the sensed signal and then transmits both the signal and the response. The host or the server can verify the response to authenticate liveness of the input image/signal and reject it if the response is different. Areas of application include automated biometrics and remote medical imaging.

09290645-041299  
662740-54906260